

FIG. 1

0966374.094820

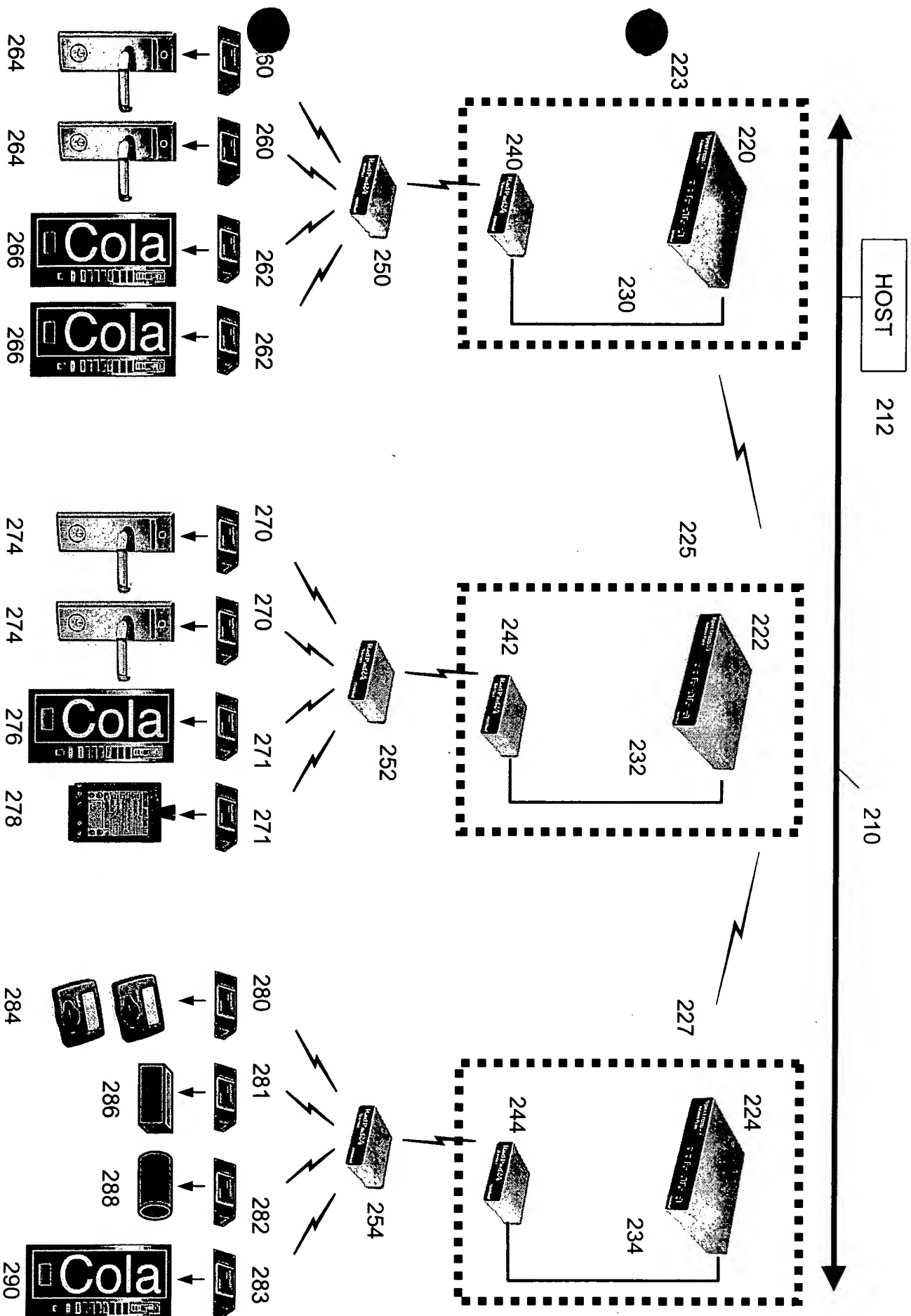


FIG. 2

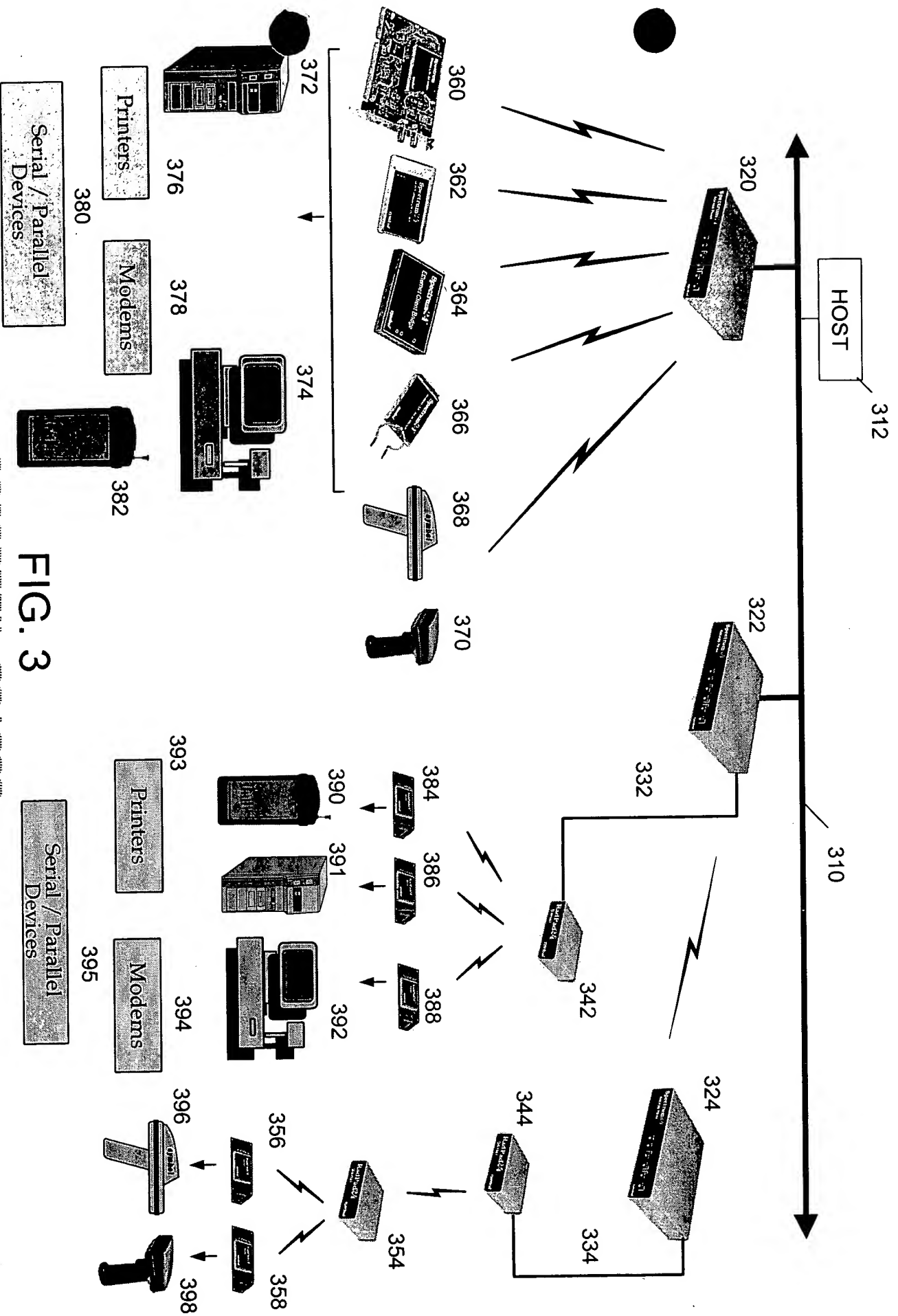


FIG. 3

096374, 094800

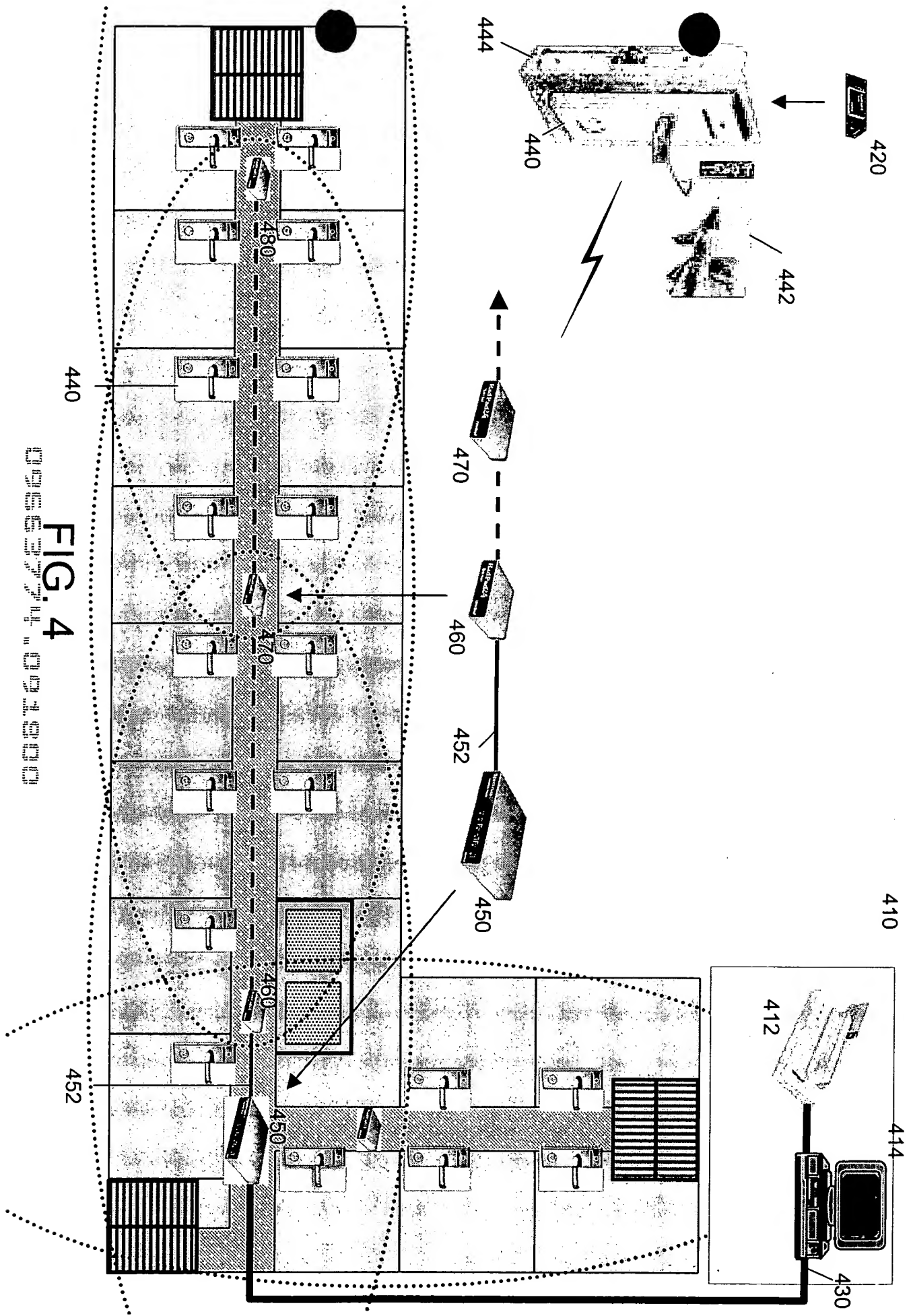


FIG. 4
095374, 094600

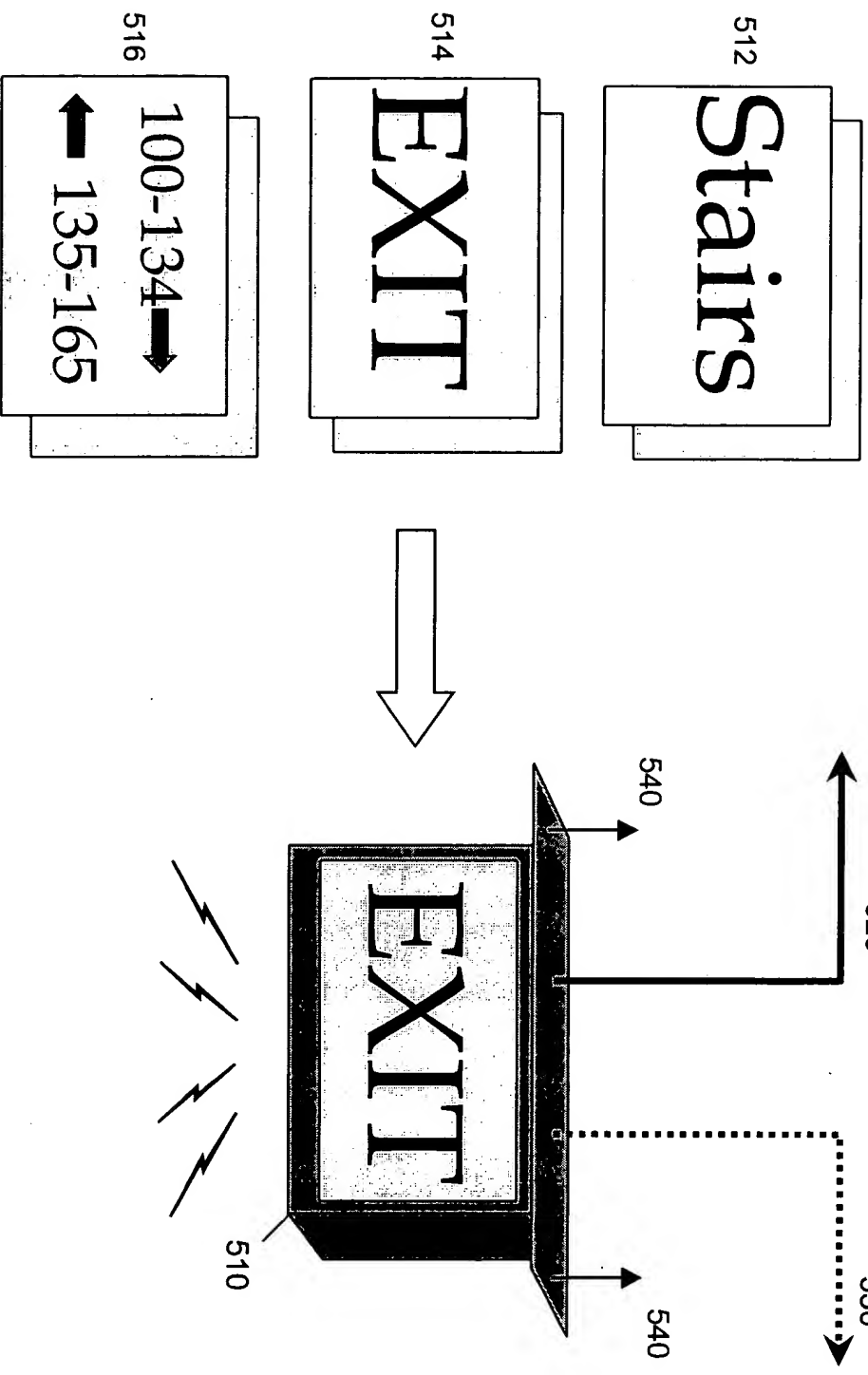


FIG. 5

0956374, 091800

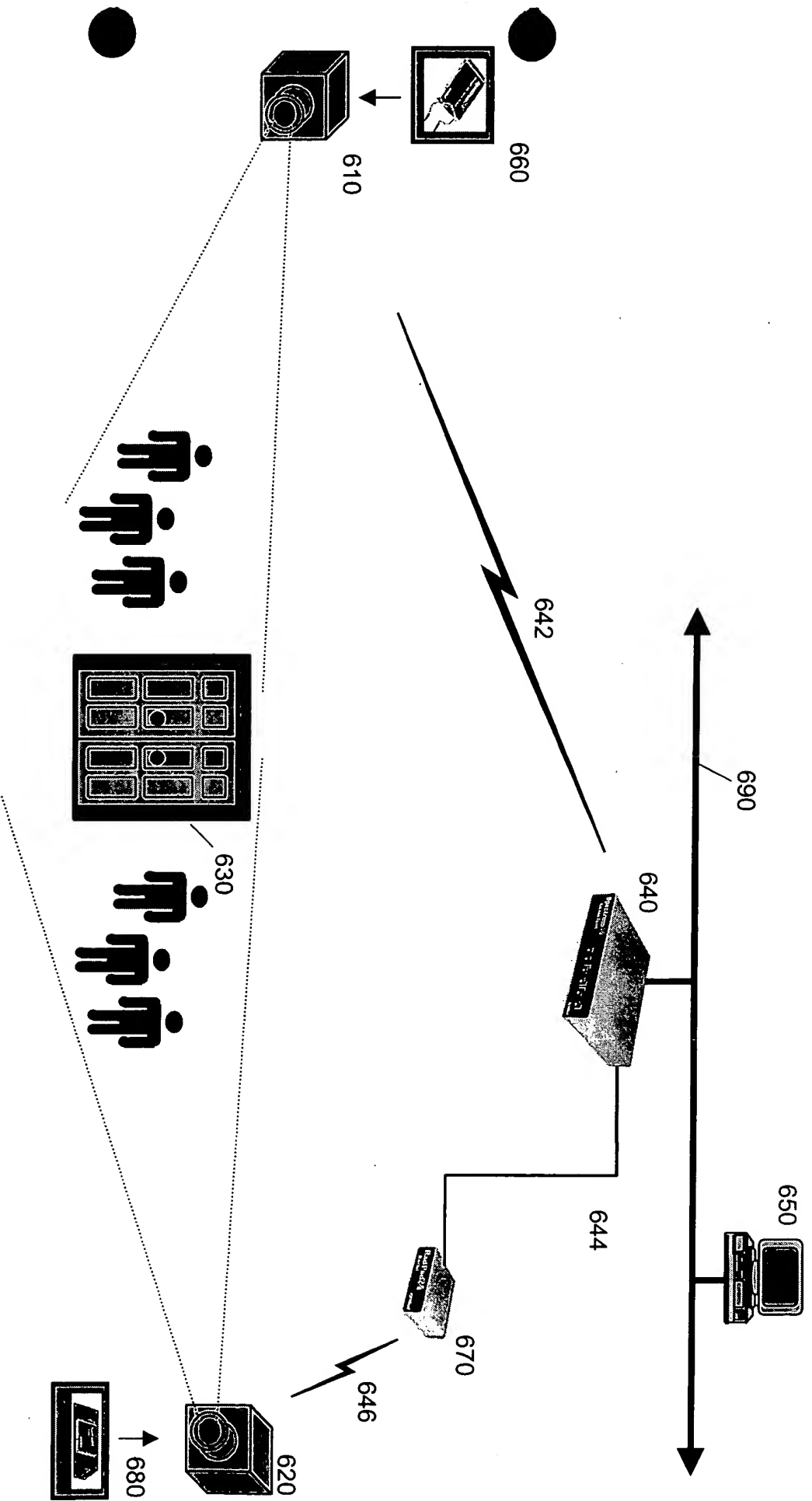


FIG. 6

09663774, 094800

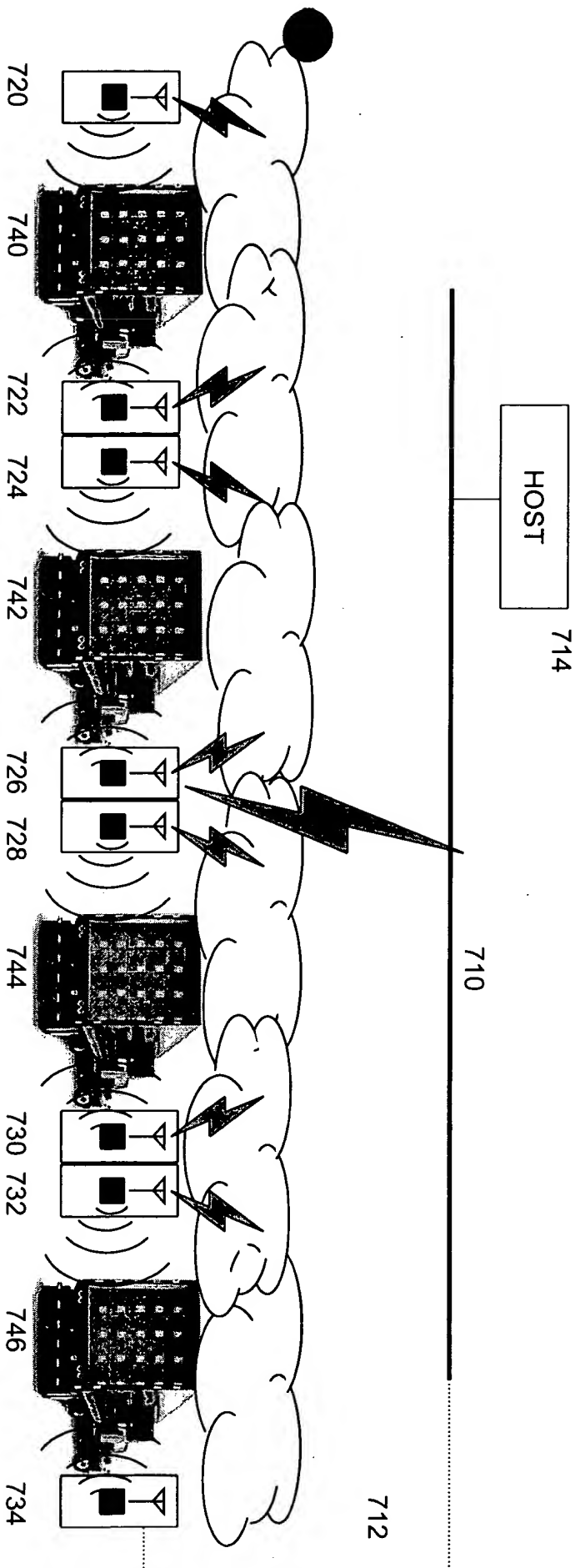


FIG. 7

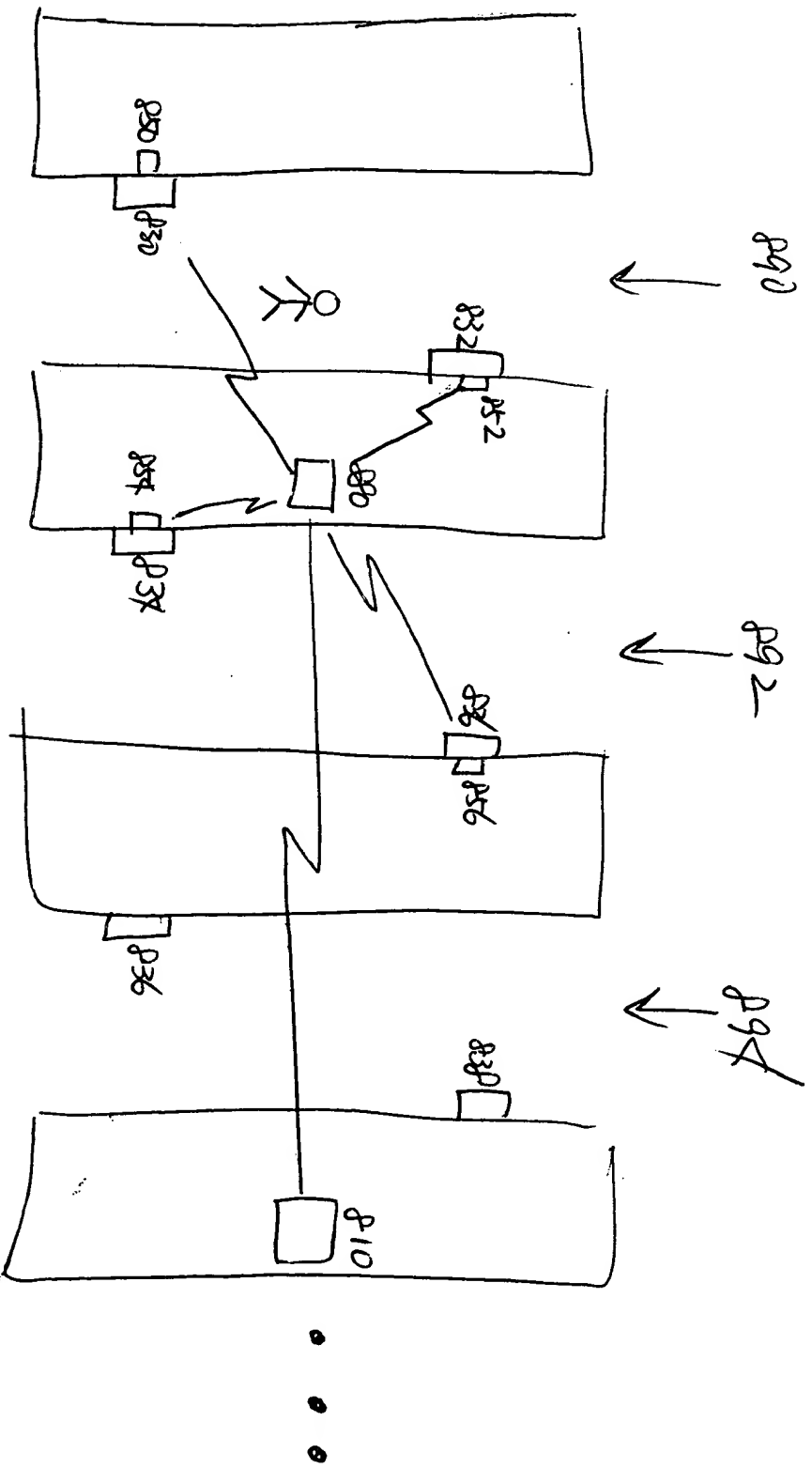


FIG. 8

09653774, 091800

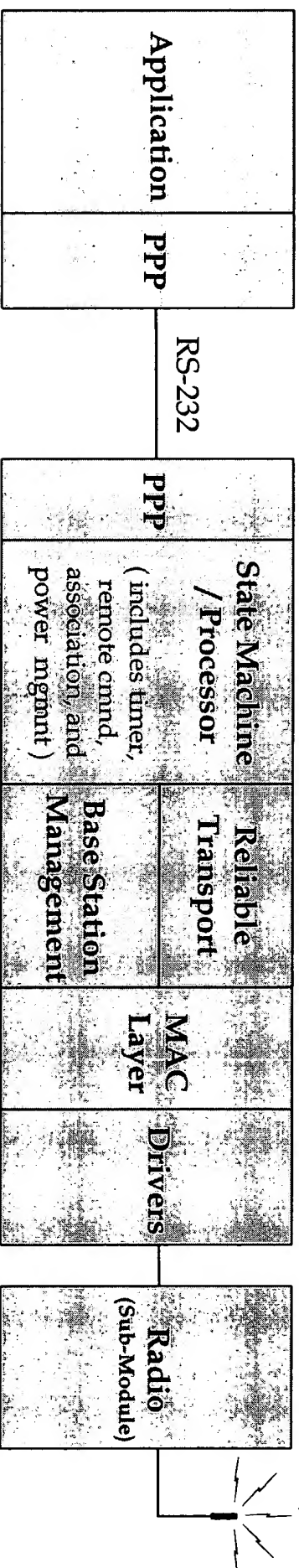


FIG. 9

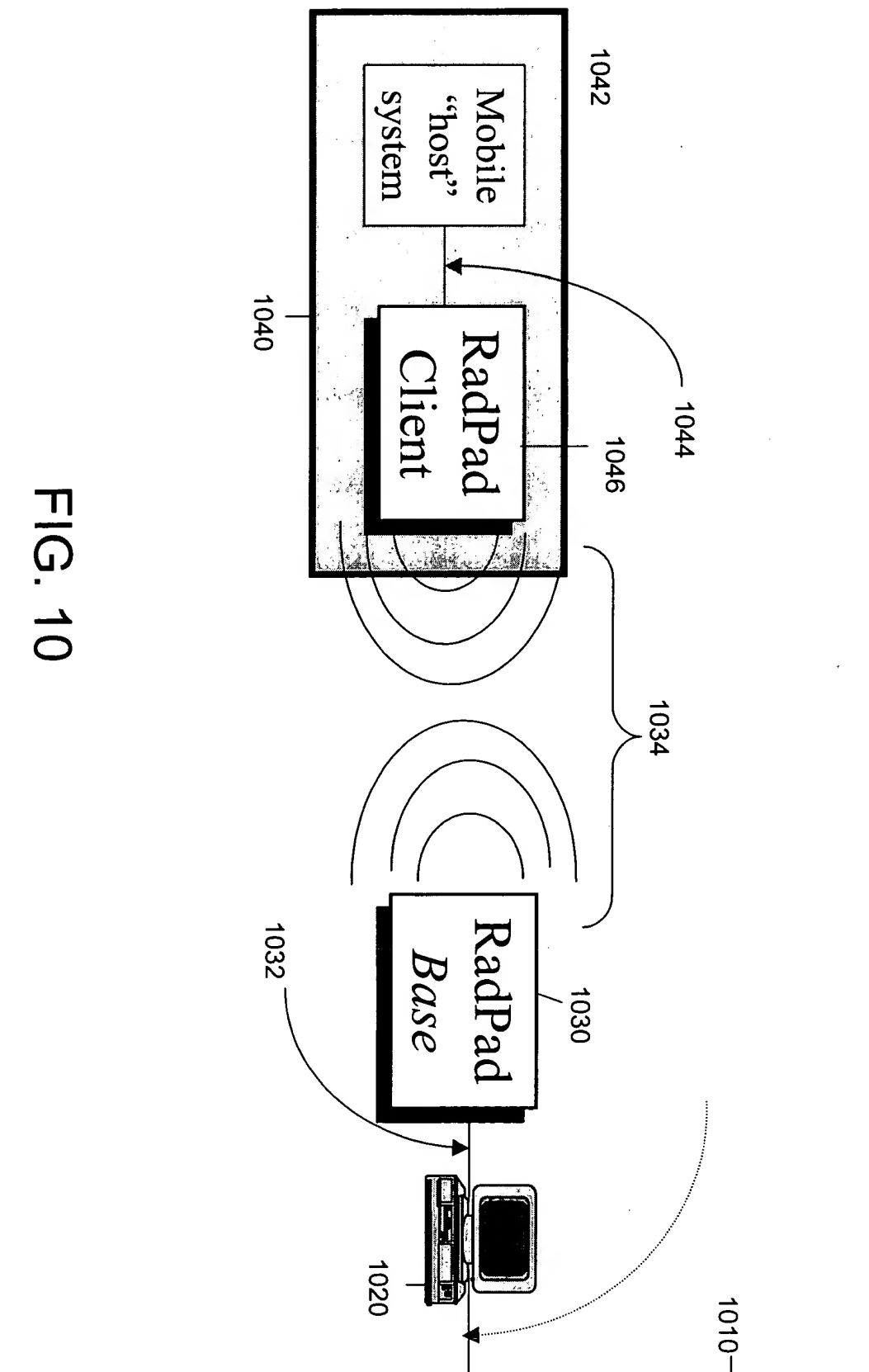
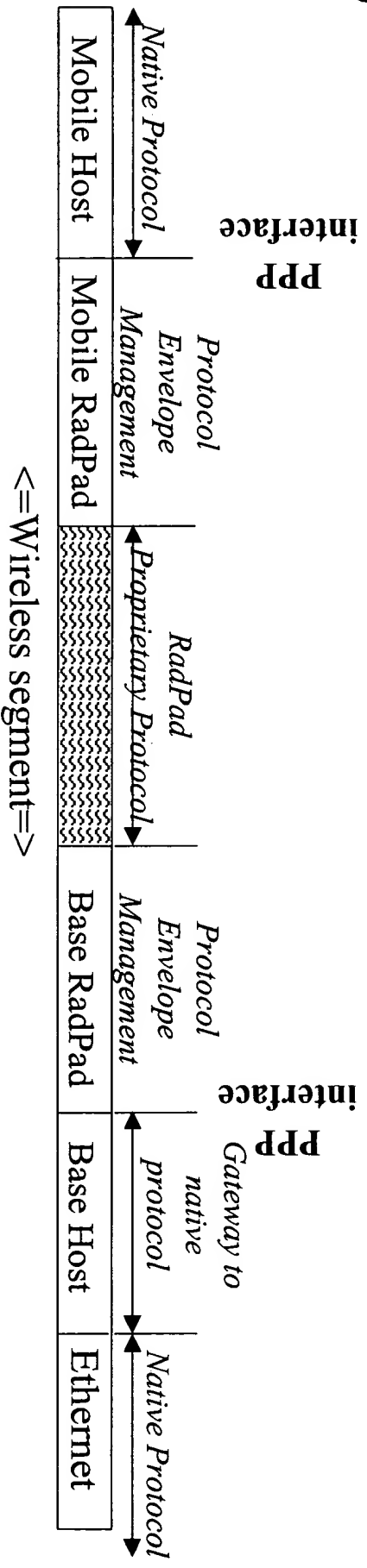


FIG. 10



TCP/IP	TCP/IP tunneled in RadPad Protocol	TCP/IP
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FIG. 11

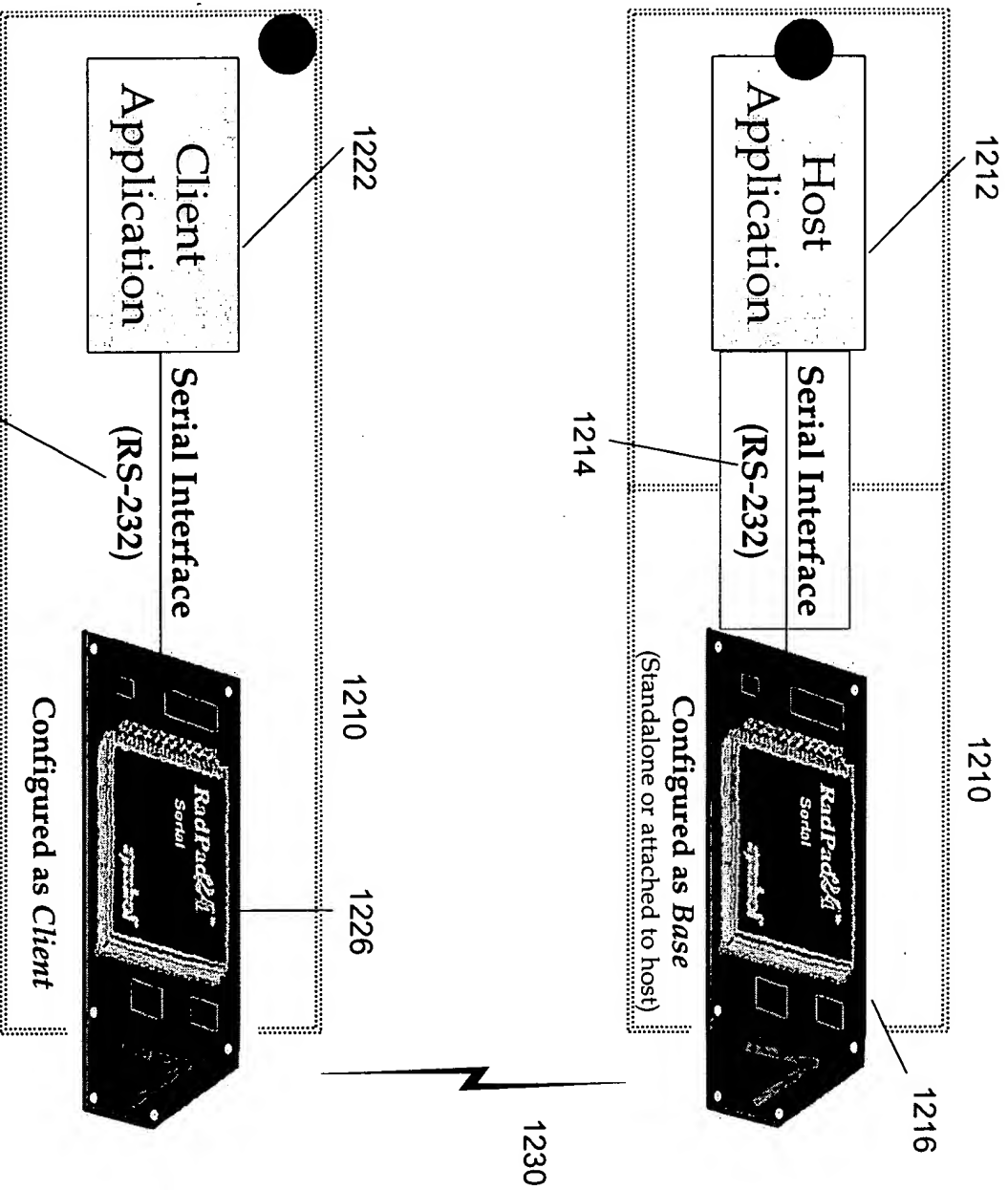


FIG. 12

0965374.094800

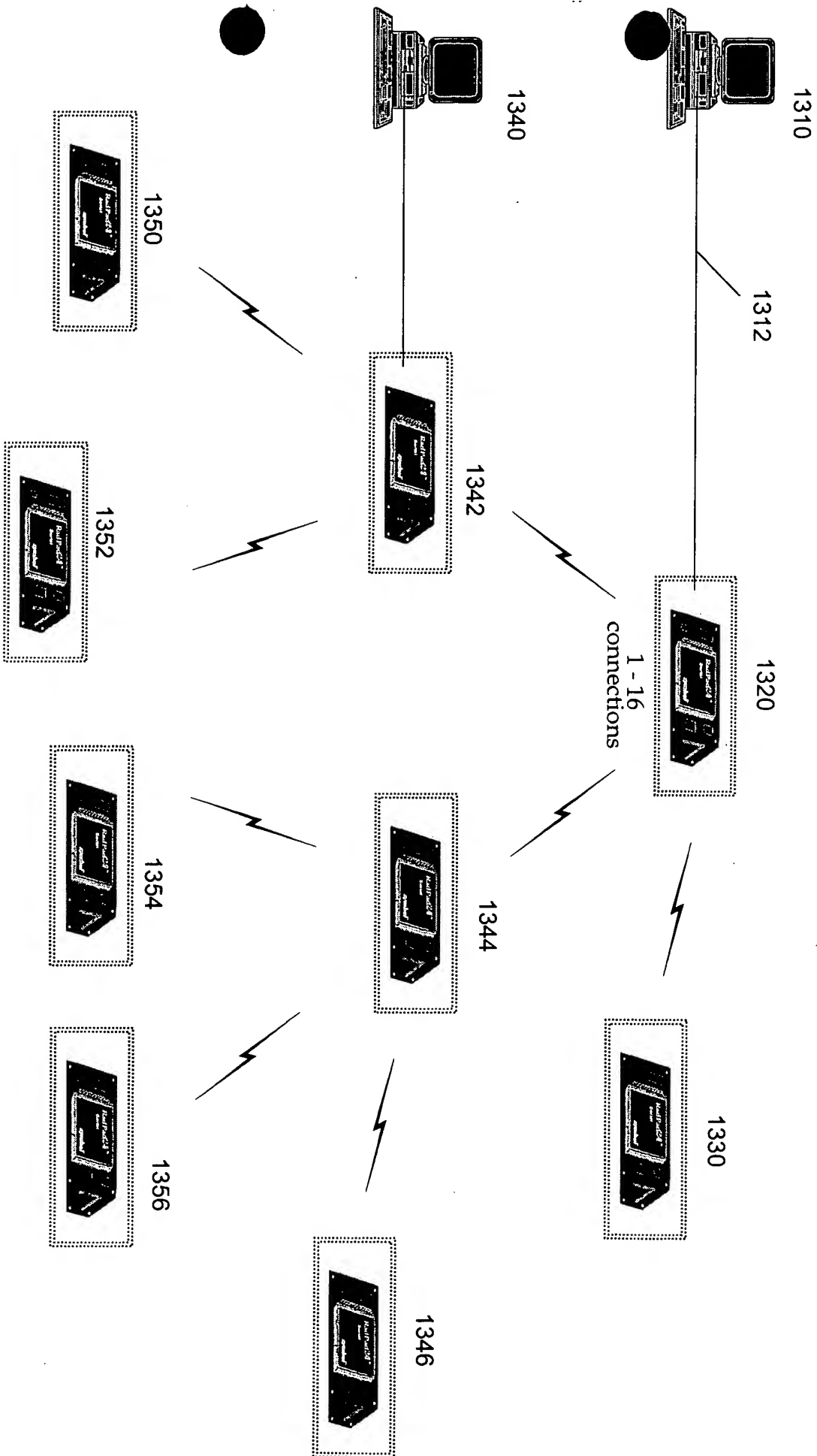


FIG. 13
09553774.091300

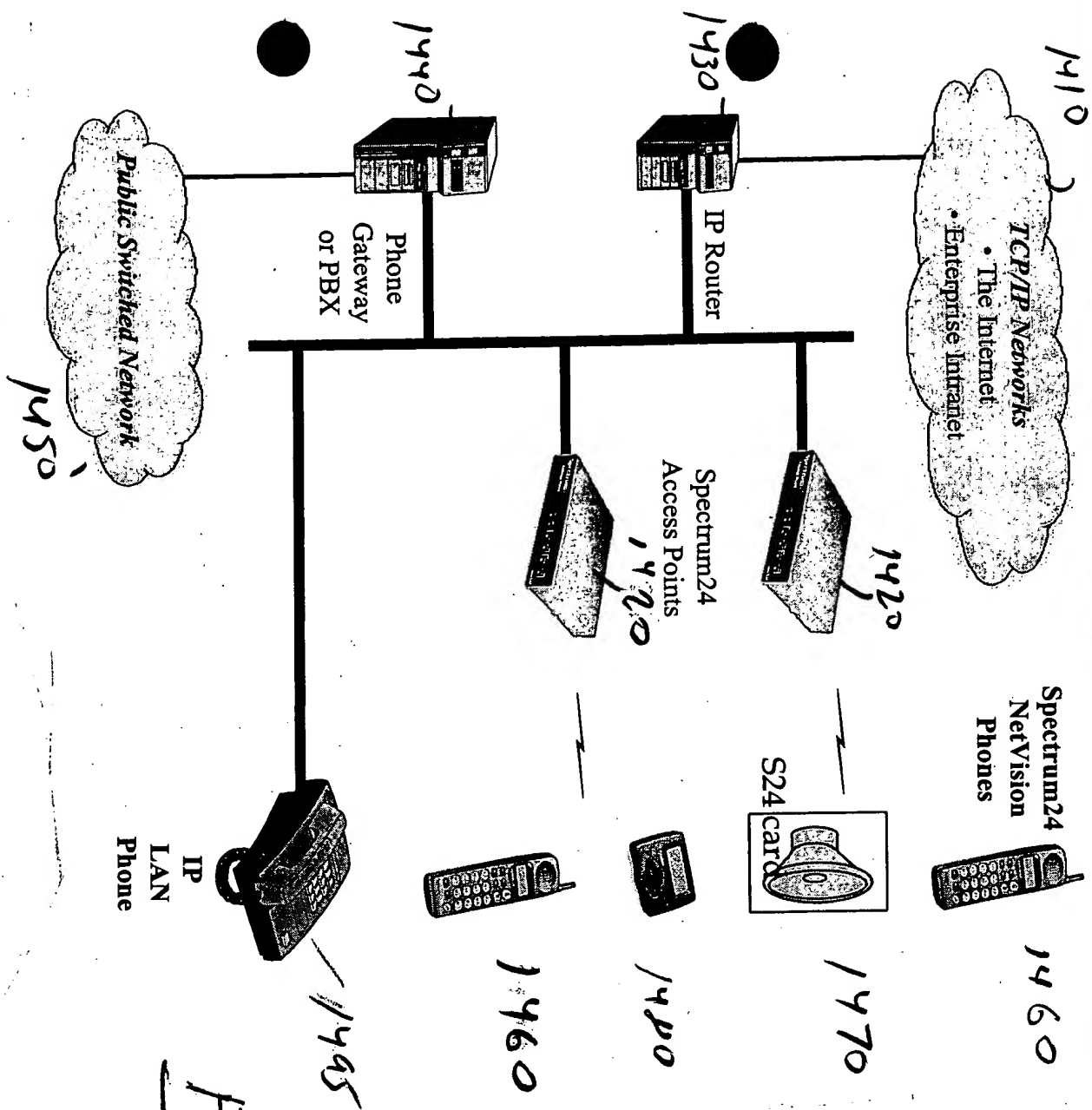


FIG. 14

09663774, 091800

FIG. 15

Internet Service Provider 1501

Public Telephone Network 1502

PBX 1503

IP / Voice Gateway 1504

Wired LAN 1505

Spectrum24 Access Point 1506

RaddPad Antenna 1507

RaddPad 1508

Low Speed 1509

Short Range 1510

High Speed Long Range 1511

Phones, Pagers, Door Locks, Vending Machines, Building Controls, RF ID, Sensors, Telemetry, and other Serial Devices

RaddPad Connections:

- NetVision Speaker
- Phone RS-232 + Modem Port and Parallel Port to Network Printer
- IR Port
- Data / Fax Connections

1503

1507

1501

Public Telephone Network

PBX

IP / Voice Gateway

Wired LAN

**Spectrum24
Access Point**

- Front Desk
- Key Admin
- Monitoring

RadPad Connections:

Phones, Pagers, Door Locks, Vending Machines,
Building Controls, RF ID, Sensors, Telemetry,
and other Serial Devices

RadPad Antenna

150

515

**Spectrum24
Antenna**

High
Speed

Long
Range

Low
Speed

Short
Range

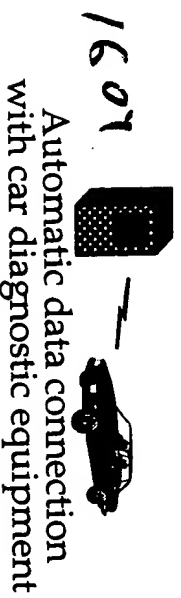
- NetVision Speaker
- Phone RS-232 + Modem Port and Parallel Port to Network Printer
- IR Port
- Data/Fax Connections

COLEGE LIFE

F/G. 16



1601
Selectively talk to other cars that are within range while driving (chat, ask for help,...)



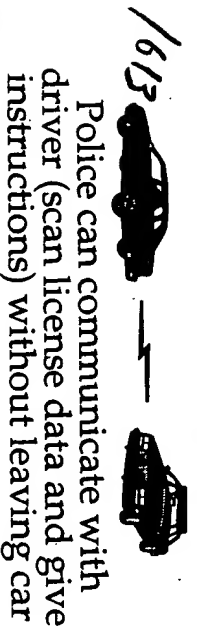
1607
Automatic data connection with car diagnostic equipment



1610
Tourism data sent to cars, tour buses, and trolley cars, as vehicle approaches site



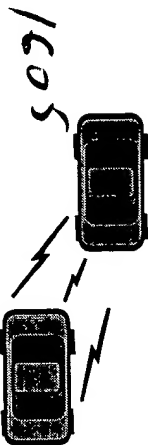
1613
Toll Booth fast lanes



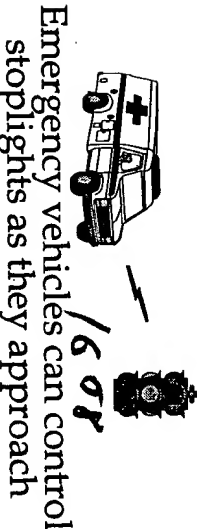
1614
Police can communicate with driver (scan license data and give instructions) without leaving car



1602
Car dealers can identify cars and match with database of sales info



1605
Monitoring of cars around you while driving (telemetry)



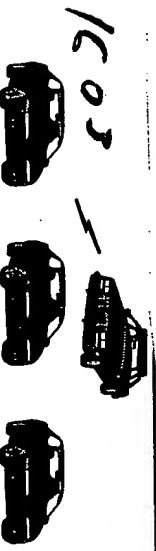
1608
Emergency vehicles can control stoplights as they approach



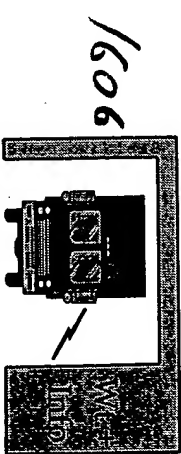
1611
Public safety messages and trip directions automatically sent to vehicles



1617
Emergency vehicles (police, fire, ambulance) can query local security systems as they approach building



1603
Stolen cars can be found by driving around and matching vehicle ID with database... without LoJack



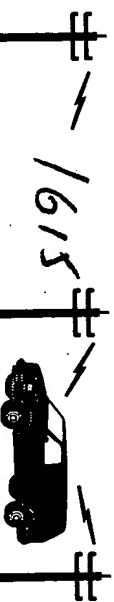
1606
Fast weigh stations for trucks (check vehicle information and manifest automatically... even while driving)



1609
Taxis can notify specific customers when they have arrived



1612
Connects to automated gas pumps (transmits car data for filling and billing info when finished)



1615
Possible alternative voice network to cellular ??

0965374 091800

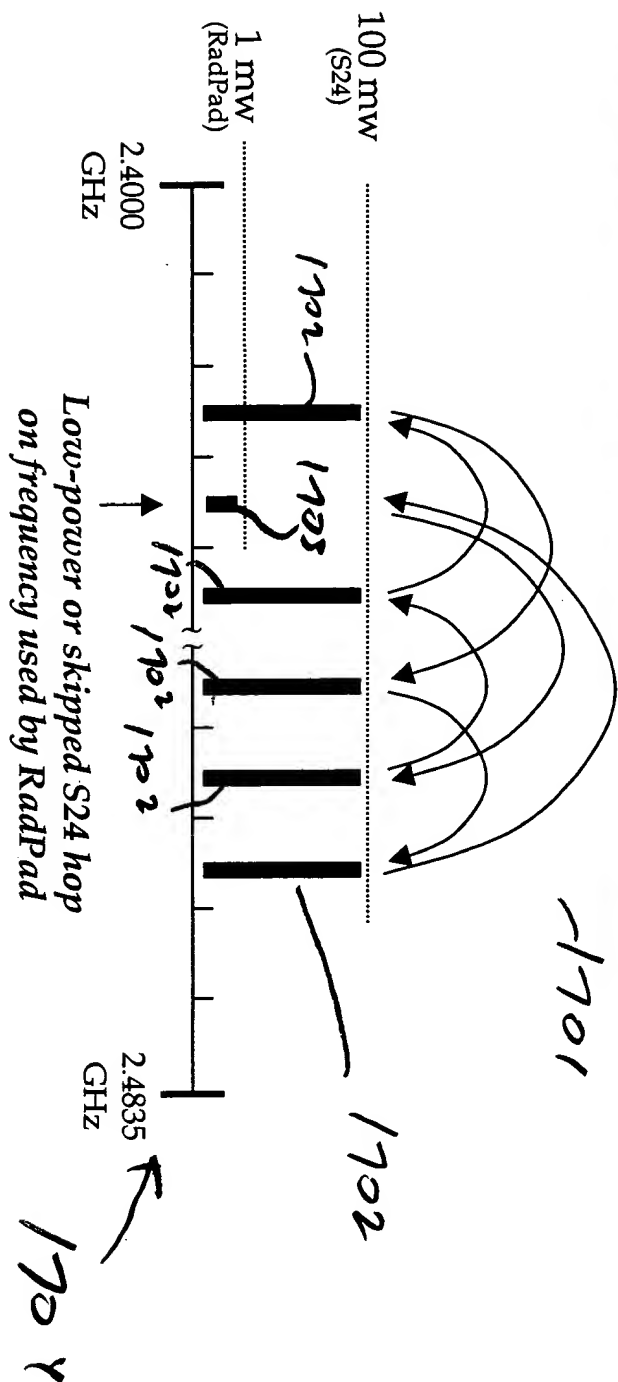


Fig. 17

0066374.091800

1801

83 MHz - 83 Total Channels (1 MHz)

79 Hop Channels (802.11)

1802

1803

Unused
(1 MHz)

Guard Band
(1.25 MHz)

2.4000
GHz

1804

Unused
(1 MHz)

Guard Band
(1.25 MHz)

2.4835
GHz

1805

RadPad frequencies at both ends of 2.4
band to reduce chance of interference

F 16. 18